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| APPLICATION NO.                                 | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/030,185                                      | 02/01/2002  | Shinji Ogawa         | 020098              | 4390             |
| 23850   | 7590        | 11/28/2003           | EXAMINER            |                  |
| ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP |             |                      | WU, SHEAN CHIU      |                  |
| 1725 K STREET, NW                               |             |                      | ART UNIT            |                  |
| SUITE 1000                                      |             |                      | PAPER NUMBER        |                  |
| WASHINGTON, DC 20006                            |             |                      | 1756                |                  |

DATE MAILED: 11/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/030,185

Applicant(s)

OGAWA ET AL.

Examiner

Shean C Wu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 2,7,8 and 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-6,9,10 and 13-17 is/are rejected.
- 7) ☒ Claim(s) 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other: \_\_\_\_\_

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## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election without traverse of species of formula (I), wherein R is a propyl, Y is a fluorine,  $L^2$  is a single bond, m is 0, n is 1, ring B is represented by formula 1-4 and ring C is 3,5-difluoro-1, 4-phenylene group in Paper filed 9/22/2003 is acknowledged. The elected compound reads on Claims 1, 3-6, 9-11 and 13-17. Claim 2 is not part of the elected species because the ring C in the claim is optionally substituted by "a" fluorine atom.

2. Claims 2, 7-8 and 12 have withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper filed 9/22/2003.

3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### *Allowable Subject Matter*

4. The elected species is allowed over the prior art. Because the elected species is allowable, the Examiner tries to interpret the claimed compound as broad as possible base on the elected

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species. The Examiner selects the compounds wherein B ring =I-1, I-2, I-3 and I-4, m=0, n=1, L<sup>2</sup>=a single bond, R=alkyl and Y=fluorine, which are also allowable. However, the Examiner finds the compounds of 9a-9d in Table 2 on page 42 and the second compound on page 46 read on the generic Claim 1 (Mol. Cryst. Liq. Cryst. 1995).

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 3, 6, 9 and 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Kossmehl et al (Mol. Cryst. Liq. Cryst., pages 39-53, 1995).

The compounds of 9a-9d in Table 2 on page 42 and the second compound on page 46 read on the generic Claim 1 (formula I-3, wherein m=n=1, L<sup>1</sup>=COO, L<sup>2</sup>=OCO, R=Y=alkenyoxy). The reference anticipates the claimed compound.

7. Claims 1, 4-6, 9 and 13-17 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 10-236992.

The compound of structure formula 7 on page 21 anticipates the claimed compound (formula I-2), wherein Y is pentyl, X<sup>3-6</sup>=F, m=0, n=1, A =1,4-phenylene, L<sup>2</sup> is -OCH<sub>2</sub>. Also, the reference discloses the reference compound is suitable for liquid crystal

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composition and display device including STN and active matrix (page 13 section [00660]). Therefore, the reference anticipates the claimed invention.

8. Claims 1, 3, 5-6, 9-10 and 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Sucrow et al. (US 4,434,073).

The reference compound represented by the formula (I) anticipates the claimed compound (formula I-4), wherein, R=alkyl, Y is Cl, H and alkanoyloxy, m=0, n=0. Also, the reference discloses the reference compound is suitable for liquid crystal composition and display device. Therefore, the reference anticipates the claimed invention.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The reference GB 2377706 is encompassed by the present formula (I), however, the reference has later publication date than the present invention filing date.

10. Claim 11 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shean C Wu whose telephone number is 703-308-3956. The examiner can normally be reached on Monday-Friday 9:30 -6:00.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 703-308-2464. The fax phone number for the organization where this application or proceeding is assigned is 703-305-7718.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



**SHEAN C. WU**  
**PRIMARY EXAMINER**